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ELECTRONICS FACILITIES IN CUBA

ANNEX 7

AIRLINES ORGANIZATIONS AND OPERATIONS

CIA/RR EP60-73-S7

November 1960

CENTRAL INTELLIGENCE AGENCY

OFFICE OF RESEARCH AND REPORTS

Before the intervention in the Radio Aeronautico de Cuba SA (RACSA) on 4 August 1960 by Castro, the Civil Aeronautics Board of Cuba had complained that another operating position was needed in Cuba because of congestion. Officials of RACSA made a detailed examination of the loading on the circuits and the number of contacts offered, and the results indicated that loading was far below what normal circuits should accept. The conclusion was that a new operating position was definitely not needed and had no technical validity.

The report pointed out specifically that the current facilities were not inadequate but that the operating staff was inadequate. This position was taken in spite of the fact that the staff is basically intelligent, excellent technically, and conscientious under normal conditions. However, the staff has lost the heart to do a good job since the advent of the Castro regime and has been deliberately "dogging it." The staff attempted to obtain a large wage increase from RACSA and was turned down, resulting in a very low morale.

Since intervention, the Castro regime has tried to set up a system of air traffic control. This system is worse than having no control at all, as it cannot be relied on.

As of October 1960 the situation at Camaguey is deplorable. This is a very hazardous section because of converging air traffic from Venezuela, Jamaica, and South America at Camaguey. Southbound traffic also converges at this point, and there have been numerous occasions of aircraft penetrating upper levels. Aircraft are supposed to contact Havana for clearance for the entire region, but there is considerable difficulty trying to forward contacts to Havana.

Before the overthrow of the Batista regime, there were plans to improve air traffic control in Oriente Province. The Batista regime bought equipment, and some pieces were installed, but the project was never completed. At one time there was a direct through circuit from Havana to Camaguey, but this was changed so that everything now goes to Havana.

When RACSA was first established (30 April 1947), a meeting was held to establish the different circuits that would be actively operated, and to determine who would use what and how much they would pay. Usage of circuits is as follows:

A. Rancho Boyeros

2A voice circuit, air-ground international, used by Chicago and South (now Delta), Braniff

5A voice circuit, air-ground international, used by PAA and NAL

12 CW circuit, air-ground international, used by Cubana Airline for flights to Bermuda and Europe

2 circuit radio teletype, point-to-point, used by Braniff and Delta

5 circuit radio teletype, point-to-point, used by Braniff

13 CW circuit to Merica, used by PAA

14 CW circuit point-to-point, used by PAA

14A circuit, point-to-point, used by Delta, Braniff, PAA, and NAL

Rancho Boyeros also has an air phare, a nondirectional signal similar to a marine beacon, which is used by everyone

B. Camaguey

8A voice circuit, air-ground international, used by PAA

14A VHF voice circuit, used by PAA and CCA

12A voice circuit, point-to-point to Miami, used by PAA

Air-ground voice domestic service, used by Cubana

Point-to-point domestic service, voice, connecting Camaguey with other points in Oriente Province and Havana, used by PAA and CCA

Point-to-point CW to Kingston, used by PAA

Point-to-point CW Camaguey to Port au Prince used by PAA

C. San Julian

Point-to-point, San Julian - Rancho Boyeros, used by PAA and CMA, plus one air phare.

D. Manzanillo

All circuits used by Cubana Airlines.

One Air phare, used by PAA, CCA, KLM, Delta, LAV

E. Cienfuegos

Domestic station of Cubana

F. Santiago - Domestic station of Cubana

G. Guantanamo - Domestic station of Cubana

H. Baracoa - Domestic station of Cubana

I. Mantilla - Domestic station of Cubana

At first, RACSA had all of these circuits on its books and they were operated by RACSA personnel. At a later date, all stations except Havana were returned to the ownership and operation of Cubana Airline, which operates them as of October 1960, with the exception of San Julian and Manzanillo have been deleted.

As of October 1960, the civil aeronautics facilities in Havana are operated by RACSA, and the remainder in Cuba, with the exception of a few odds and ends, are operated by Cubana. For example, Expresa Aereo has one circuit in Havana which it operates and Aerovias "Q" has a station in Marianao at Ciudad Libertad.

Equipment owned by RACSA at the operations control point in the Jose Marti Terminal building, Havana, is as follows:

Four operating positions are located in the same room as the teletype center equipment.

The teletype center has circuits to principal offices of airlines at the terminal for delivery of aircraft movement information and other messages.

Air-ground positions are operated by direct copying on a teleprinter that automatically repeats information into airline offices and the air traffic control center.

The center has the terminal of a leased teletype service that connects to Miami.

The control center at Jose Marti Terminal is linked to the remote transmitter site on the Boyeros road, midway between Havana and Rancho Boyeros. It operates by means of leased wires furnished by the Cuban Telephone Company. The transmitter house is located at Finca Guarapo, on the east side of Boyeros Road, at a point where the railroad crosses the road.

As of April 1960, eight rebel army soldiers were quartered at the transmitter house and were sleeping on the floor, as there were no other accommodations.

The ownership of the land on which the transmitter house is located at Finca Guarapo has passed to the government and RACSA was recently requested to remove its transmitters to another location.

The control center at Jose Marti Terminal is linked to the remote receiver site at Addelaida Estate.

Almost all of the equipment used by RACSA is of US origin:

Some Collins 231D transmitters of 3,000 watts

Some transmitters made by Aeronautical Communications Company, Model 12ACK, of 1,000 watts

Some Western Electric transmitters of 350 watts, model 4WTFA. These were originally manufactured by WE to PAA specifications during World War II.

Link equipment which connects the control center with the receiving center is "Federal Microwave" of PTM type.

Tunable receiving equipment in the control center is "National Radio" Model NC 240.

Remote receivers are mostly Collins 51N2 and Collins 51N5 (radio teletype receivers).

Air phares are mostly "Aerocom" Models 12GLX and 12GLX2. These are dual-basis transmitters, automatic changeover, equipped with power supply and "Windcharger" 140-foot steel towers. They have a 1,200 watt rating for transmission.

The equipment operated by RACSA is 10 to 20 years old, but is maintained in very good shape. Only the PTM link equipment is questionable. Before intervention, RACSA was trying to negotiate a loan to replace this equipment.

The antenna equipment at Finca Guarapo originally included two Rhombic antennas for radio teletype usage on the Havana-Houston circuit (de-commissioned as of October 1960) and the Havana-Panama circuit (never implemented). The remainder of the transmitting antennas are largely of the dipole type, half-wave, fed with two wire-open transmitting lines with matching studs.

The receiving antennas include two Rhombics, for the radio teletype circuits to Houston and Panama. The remainder were half-wave dipole types used in conjunction with multicouplers, which permits one to serve a multiplicity of receivers.

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Control Sheet

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